



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

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Washington, DC 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/958,562	10/27/97	SUGAWARA T	0059-1000-3

OBLOM SPIVAK MCCLELLAND  
MAIER AND NUESTADT  
FOURTH FLOOR  
1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON VA 22202

MM31/0122

EXAMINER

DAY, M

ART UNIT PAPER NUMBER

2875

# 7

DATE MAILED: 01/22/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**



UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NUMBER 08/200,562	FILING DATE 10/27/97	SUBSTANCE SUGAR	FIRST NAMED APPLICANT T	ATTORNEY 00000000-3
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1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON VA 22202

DAY, EXAMINER

PAPER NUMBER

01/72/99

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

- ☐ This communication is responsive to \_\_\_\_\_.
- ☒ The allowed claim(s) is/are 1-6.
- ☐ The drawings filed on \_\_\_\_\_ are acceptable.
- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- ☒ Applicant MUST submit NEW FORMAL DRAWINGS
- ☐ because the originally filed drawings were declared by applicant to be informal.
- ☒ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 7.
- ☐ including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.
- ☒ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

- ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☒ Notice of Draftperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Interview Summary, PTO-413
- ☒ Examiner's Amendment/Comment (including examiner's amendments to the drawings)
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☒ Examiner's Statement of Reasons for Allowance

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## DETAILED ACTION

### *Drawings*

1. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figure 3 has been amended to include the reference character " $\sigma_T$ " as described on page 3, lines 6. Figures 1-3 have been amended to include the legend --Prior Art-- because only that which is old is illustrated, and FIG. 5 has been relabeled FIG. 5(a)-5(e) to comply with the draftperson's objection to the drawings. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.
2. The changes to the drawings required to overcome minor objections to the drawings, and were authorized in a telephone conversation with Mr. R. Gnuse on January 20, 1999.

## INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. **Correction of Informalities** -- 37 CFR 1.85; 1097 O.G. 36

New formal drawings must be filed with the changes incorporated therein. The art unit number, application number (including series code) and number of drawing sheets should be written on the reverse side of the drawings. Applicant may delay filing of the new drawings until receipt of the "Notice of Allowability" (PTOL-37 or PTO-37). If delayed, the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the "Notice of Allowability" to avoid extension of time fees. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a) for filing the corrected drawings (but not for payment of the issue fee). The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

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**2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

**Timing of Corrections**

Applicant is required to submit acceptable corrected drawings within the three month shortened statutory period set in the "Notice of Allowability" (PTO-37). Within that three month period, two weeks should be allowed for review of the new drawings by the Office. If a correction is determined to be unacceptable by the Office, applicant must arrange to have an acceptable correction re-submitted within the original three month period to avoid the necessity of obtaining an extension of time with extension fees. Therefore, applicant should file corrected drawings as soon as possible.

Failure to take corrective action within the set (or extended) period will result in **ABANDONMENT** of the application.

***Examiner's Reasons for Allowance***

3. The following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a glass bulb for a cathode ray tube comprising: a panel portion with a face portion of substantially rectangular shape, and a skirt portion forming a side wall for the face portion, a funnel portion, and a neck portion, wherein a compressive stress is formed in at least an outer surface of the panel portion by physical strengthening; there is a relation of  $1.0 \leq t_R/t_F \leq 1.4$  between the maximum wall thickness  $t_F$  of the face portion on at least one axis of a long axis and a

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short axis which pass through the center of the face portion and which cross at a right angle, and the maximum wall thickness  $t_R$  of a blend R portion for connecting the skirt portion; and a formula of  $7 \text{ MPa} \leq |\sigma_C| \leq 30 \text{ MPa}$  is satisfied where  $\sigma_C$  is a compressive stress value by physical strengthening in at least an area including a position at which the maximum tensile vacuum stress  $\sigma_{V_{\max}}$  is formed after assembling of the cathode ray tube, substantially as shown in the figures, and described in the specification. The glass bulb having the subject claimed maximum wall thickness  $t_F$  of the face portion on at least one axis of a long axis and a short axis which pass through the center of the face portion and which cross at a right angle, and the maximum wall thickness  $t_R$  of a blend R portion for connecting the skirt portion provides control in cooling of the glass bulb while the compressive stress is formed in at least the outer surface of the panel portion.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### *Examiner's Amendment*

4. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

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5. On page 10, line 14, the phrase "Figure 5 is a diagram" has been changed to --Figure 5a-5e are diagrams--.

6. In claim 1, line 5, the phrase [is formed at at least an outer surface] has been changed to is formed in at least an outer surface.

7. The changes to claim 1, and to the specification, were required to overcome respective minor objections, and were authorized in a telephone conversation with Mr. R. Gnuse on January 20, 1999.

8. Pursuant to MPEP § 606.01, the title has been changed follows:

--STRENGTHENED GLASS BULB FOR A CATHODE RAY TUBE--

***Allowable Subject Matter***

9. Claims 1-6 are allowed over the prior art of record.

10. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities

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remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

***Conclusion***

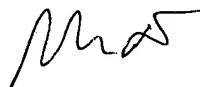
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Day whose telephone number is 703/305-4941. The examiner can normally be reached on Monday-Friday, from 8:00 A.M. to 5:00 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached by phoning 703/305-4939. The Fax phone number is 703/308-7382.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703/305-4900.

January 20, 1999



**MICHAEL DAY  
PATENT EXAMINER  
GROUP 2800**

  
Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

MM31/0122

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/958,562	10/27/97	006	DAY, M	2875 01/22/99
First Named Applicant	SUGAWARA,	35 USC 154(b)	term ext. =	0 Days.

TITLE OF STRENGTHENED GLASS BULB FOR A CATHODE RAY TUBE  
INVENTION (AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	0059-1000-3	313-477,00R	022 UTILITY	NO	\$1210.00	04/22/99

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.  
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.  
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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